

Chapter 11

Safety & Good Shop Practices

The work of the individual still remains the spark that moves mankind ahead even more than teamwork.

—Igor Sikorsky

Introduction

Machine shops contain many potential hazards, but with proper training, knowledge, and caution, you can avoid these dangers. You must remember that human flesh is no match for machines powered by several horsepower and designed to rapidly remove large volumes of metal. These machines take no prisoners and rarely offer second chances. In addition to machine hazards, there are chemical, electrical, fire, and environmental hazards. Your best chance of avoiding injury comes when you:

- Understand how tools and machines work before attempting to use them.
- Know and follow basic shop safety rules.
- Learn the precautions necessary for safely handling hazardous materials by studying their MSDSs.
- Plan ahead and anticipate what is likely to happen next.
- Take your time and do not rush your work.

The material in this chapter cannot cover every potential hazard and circumstance, but it will get you started in the right direction. Additional safety precautions associated with specific machines appear in relevant chapters.

What are the principal hazards in a machine shop?

- Contact with cutting tools, particularly rotating cutters and saw blades.
- Pinches, cuts, and punctures from hand and power tools.
- Capture of loose clothing, hair, jewelry or rags by rotating tools or machinery, which draws in the victim.
- Eye injury inflicted by flying metal chips, sparks, compressed-air-driven debris, compressed gases or splashing liquids.
- Eye injury from exposure to ultraviolet or infrared radiation from welding, torch or laser operations.